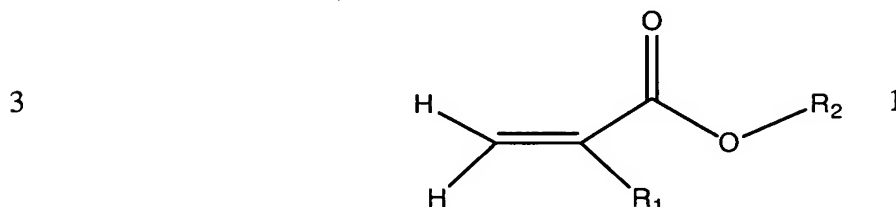


WHAT IS CLAIMED IS:

- 1 1. A photocurable silver composition comprising:
 2 an aliphatic acrylated urethane oligomer;
 3 an acrylated epoxy oligomer; and
 4 an acrylate monomer selected from the group consisting of
 5 non-bridged cyclic acrylate monomers, non-cyclic acrylate monomers, and mixtures
 6 thereof;
 7 a photoinitiator;
 8 silver powder; and
 9 silver flakes in an amount of at least 20% relative to the weight
 10 of the silver powder.

- 1 2. The silver composition of claim 1 wherein the acrylate
 2 monomer is described by formula 1:



- 4 wherein R_1 is hydrogen or substituted or unsubstituted alkyl; and R_2 is non-cyclic
 5 functional group or a non-bridged cyclic group.

- 1 3. The silver composition of claim 2 wherein the acrylated
 2 monomer is a non-cyclic monomer and R_2 is a substituted or unsubstituted alkyl
 3 having more than 4 carbon atoms.

- 1 4. The silver composition of claim 2 wherein the acrylated
 2 monomer is a non-bridged cyclic acrylate monomer and R_2 is cycloalkyl,
 3 cycloalkenyl, or substituted or unsubstituted aryl.

- 1 5. The silver composition of claim 2 wherein R_1 is hydrogen or
 2 methyl.

1 6. The silver composition of claim 2 wherein R₂ is phenyl,
2 benzyl, dicyclopentenyl, dicyclopentenyl oxyethyl, cyclohexyl, or naphthyl.

1 7. The silver composition of claim 1, wherein the aliphatic
2 acrylated urethane oligomer is present in an amount of about 3% to 8% of the silver
3 composition.

1 8. The silver composition of claim 1, wherein
2 the acrylated epoxy oligomer is present in an amount of about 2% to
3 4% of the silver composition;
4 the silver powder is present in an amount of about 50% to 60% of the
5 silver composition;
6 the silver flakes are present in an amount of about 25% to 35% of the
7 silver composition;
8 the aliphatic acrylated urethane oligomer is present in an amount of
9 about 8% of the silver composition; and
10 the photoinitiator is present in an amount of about 3% to 6% of the
11 silver composition.

1 9. The silver composition of claim 1 further comprising a
2 component selected from the group consisting of a flow promoting agent, an
3 adhesion promoter, a wetting agent, a conductive carbon black powder, an antimony
4 tin oxide powder, and mixtures thereof.

1 10. The silver composition of claim 1 further comprising an
2 antimony tin oxide powder and a flow promoting agent.

1 11. The silver composition of claim 10 further comprising a blend
2 of a polyacrylic oligomer and an acrylate monomer.

1 12. The silver composition of claim 1 further comprising an
2 isobornyl acrylate monomer.

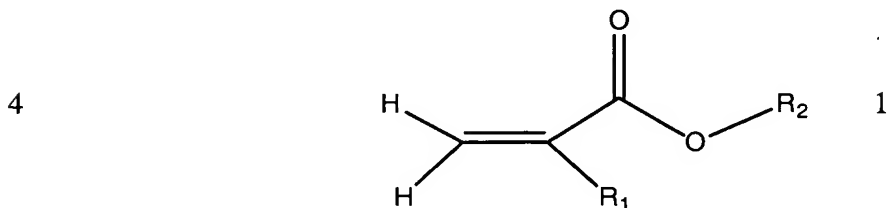
1 13. A photocurable silver composition comprising:
2 an aliphatic acrylated urethane oligomer;
3 an acrylated epoxy oligomer;
4 a photoinitiator;
5 silver powder; and
6 silver flakes in an amount of at least 20% relative to the weight of the
7 silver powder.

1 14. The silver composition of claim 13 further comprising an
2 isobornyl acrylate monomer.

1 15. The silver composition of claim 13 further comprising a
2 component selected from the group consisting of non-bridged cyclic acrylate
3 monomers, non-cyclic acrylate monomers, and mixtures thereof.

1 16. The silver composition of claim 15 further comprising an
2 isobornyl acrylate monomer.

1 17. The silver composition of claim 15 wherein the nonbridged
2 cyclic acrylate monomers and the non-cyclic acrylate monomers are described by
3 formula 1:



5 wherein R_1 is hydrogen or substituted or unsubstituted alkyl; and R_2 is non-cyclic
6 functional group or a non-bridged cyclic group.

1 18. The silver composition of claim 17 wherein the acrylated
2 monomer is a non-cyclic monomer and R_2 is a substituted or unsubstituted alkyl
3 having more than 4 carbon atoms.

1 19. The silver composition of claim 17 wherein the acrylated
2 monomer is a non-bridged cyclic acrylate monomer and R_2 is cycloalkyl,
3 cycloalkenyl, or substituted or unsubstituted aryl.

1 20. A photocurable silver composition comprising:
2 a photocurable organic mixture;
3 a photoinitiator;
4 silver powder; and
5 silver flakes in an amount of at least 20% relative to the weight of the
6 silver powder and wherein the silver powder comprises a plurality of particles with
7 about 70% to 95% of the particles having a particle size less than about 14.9
8 microns.

1 21. The silver composition of claim 23, wherein the silver powder
2 comprises a plurality of particles with about 90% of the particles having a particle
3 size less than about 14.9 microns.